

THE
NATURAL HISTORY
OF
BRITISH INSECTS;

EXPLAINING THEM
IN THEIR SEVERAL STATES,
WITH THE PERIODS OF THEIR TRANSFORMATIONS,
THEIR FOOD, OECONOMY, &c.

TOGETHER WITH THE
HISTORY OF SUCH MINUTE INSECTS
AS REQUIRE INVESTIGATION BY THE MICROSCOPE.

THE WHOLE ILLUSTRATED BY
COLOURED FIGURES,
DESIGNED AND EXECUTED FROM LIVING SPECIMENS.

By E. DONOVAN.

V O L. VII.

L O N D O N :

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M D C C X C V I I I .









THE
NATURAL HISTORY
OF
BRITISH INSECTS.

PLATE CCXVII.

PAPILIO HIPPOTHOE.

GREAT COPPER BUTTERFLY.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ clubbed. Wings erect when at rest. Fly by day.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings entire, margin white. Underfide ash colour, with numerous black eye-shaped spots.

PAPILIO HIPPOTHOE alis integris: margine albo, subtus cinereis: punctis ocellaribus numerosis. *Linn. Syst. Nat.* 2. 793. 254?

Fab. Spec. Inf.—Ent. Syst. 2. T. 3. p. 1. 309. 172.

Degeer Inf. 2. tab. 2.

Roes. Inf. 3. tab. 37. fig. 6. 7.

Esp. pap. tab. 38. fig. 1.

Ernst, Inf. Europ. 1. tab. 44. fig. 92. 93.

Our *Papilio Hippothoe* is the largest and rarest of that kind of Butterflies called *Coppers*, by English collectors of Insects. We have heard that this insect has been lately found in Cambridgeshire: our specimens were met with in Scotland.

The female is larger than the male; it has also a greater number of black spots on the wings.



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PLATE CCXVIII.

FIG. I.

CIMEX GONYMELAS.

BLACK-KNEE FIELD BUG.

HEMIPTERA.

GENERIC CHARACTER.

Rostrum inflected. Antennæ longer than the thorax. Back flat. Thorax margined.

SPECIFIC CHARACTER.

Brown. Abdomen red. Antennæ annulated with black. Knees of the same colour.

We consider this as a nondescript Insect. It was taken at Darent Wood, Kent, early in May.

FIG. II.

CIMEX HAEMORRHOIDALIS.

HEMIPTERA.

CIMEX.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Greenish. Spines of the Thorax obtuse. Breast-piece terminate in a long spine. Antennæ black.

CIMEX

CIMEX HAEMORRHOIDALIS: thorace obtuse, spinoso subvirescens,
antennis nigris, sterno porrecto. *Linn. Syst. Nat.—*
Fn. Sv.—Fab. Ent. Syst. 4. p. 98. 76.

This Insect was found at the same time and place as the preceding species. It is the most elegantly coloured creature of its tribe we have hitherto found. *Cimex Luridus* is more beautiful in the larva, but not in the winged state.



P L A T E CCXIX.

PHALÆNA PRODROMARIA.

OAK-BEAUTY MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ fetaceous. Wings in general deflexed, when at rest.
Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ feathered. Wings white, speckled with numerous black spots. Two broad bars of dark brown on the upper wings.

PHALÆNA PRODROMARIA, pectinicornis alis albis nigro punctatis :
fasciis duabus latis fuscis. *Fab. Ent. Syst. T. 3. p. 1.*
159. 105.

Phalæna Prodromaria. *Wien. Verz. 99. 1.*

The larva of this Moth, like others of the *geometræ*, raises itself, when walking, into the form of an arch or loop: it is of an obscure grey and brown colour, faintly mottled: the head is red. This larva is seldom taken, and when taken, is reared to the fly state with the utmost difficulty. It seems a local species; for we have

have never heard that it has been found, except on the Oak trees * in *Richmond Park*. It feeds on the highest branches of the trees, but descends into the earth to become a pupa. It appears in the fly state in March.

The male Insect is considerably smaller than the female. Its horns, or antennæ, are also larger, and more feathered. This is a scarce Insect. It is found in Germany; and a variety of it has been received from North America.

* It feeds also on Lime trees.





P L A T E CCXX.

PHRYGANEA RHOMBICA.

SPRING FLY.

NEUROPTERA.

GENERIC CHARACTER.

Mouth furnished with four palpi. Antennæ longer than the Thorax. First Wings laid horizontally on the body. Under Wings folded, and concealed beneath.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings greyish brown. First pair marked with rhombic whitish spots.

PHRYGANEA RHOMBICA alis griseis: macula laterali rhombica alba.

Linn. Syst. Nat.—Fab. Ent. Syst. T. 4. p. 77. 13.

Roef. Inf. 2. Aqu. 2. tab. 16.

Schæff. Icon. tab. 99. fig. 5. 6.

The Phryganea undergo their transformations in the water: in the larva state they are taken by the fishermen for bait; and, in some parts of Holland, are found so abundant, that they are used as a cheap manure for the land. In the larva state, they generally

rally form a sort of covering, or tube, for their defenceless bodies. It is open only at one end, at which its head and fore legs are protruded, to take its prey. Some species form these coverings of weeds and small shells, gravel, sand, &c. That of our present species, is composed of little pieces of the stalks of grass, cut into an even form, and laid transversely on each other. It attaches this tube to the roots of some aquatic plants, and undergoes its transformations in it. In the annexed plate, we have represented the larva taken from the tube, and the pupa having the tube opened to exhibit its situation therein.

The Fly is very common about ponds, rivers, and marshy places.



P L A T E CCXXI.

PHALÆNA MYRTILLI.

SCARCE BROAD BORDER YELLOW UNDERWING MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general deflexed when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested. Wings deflexed, brown, spotted with white. Anterior wings yellow, with a deep black border.

PHALÆNA MYRTILLI cristata alis deflexis ferrugineis albo maculatis: posticis luteis, fascia lata submarginali nigra. *Lin. Syst. Nat.—Fab. Ent. Syst. T. 3. p. 2. 126. 379.*

A small Insect, but of singular beauty; it feeds on the whortle berry and sloe.

This species has been taken by Mr. Crow, of Faversham. The only specimen we ever met with, was found in the caterpillar state, in Kent, in the month of May. The Fly came forth in June.

P L A T E



P L A T E CCXXII.

FIG. I.

CARABUS VIOLACEUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ fetaceous. Thorax somewhat heart shaped, margined. Elytra margined also.

SPECIFIC CHARACTER

AND

SYNONYMS.

Apterous, black. Margin of the Thorax and Wing cases, glossy violet. Edges smooth.

CARABUS VIOLACEUS apterus niger thorace elytrorumque marginibus violaceis, elytris lævibus.—*Fab. Ent. Syst.* 1. 19. 125.

Carabus Violaceus. *Paykull Monogr.* 12. 4.
Frisch Inf. 13. tab. 23.

The larva of some Carabi live in the ground, others in decayed wood. They prey on the smaller kinds of Insects. Fabricius describes one hundred and ninety-five species; a considerable number of these are natives of Europe. Carabus Violaceus is found in fields.

F I G. II.

CARABUS GEMMATUS.

COLEOPTERA.

CARABUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Apterous, black. Wing cases marked with striæ; and three rows of bronzed indented double spots.

CARABUS GEMMATUS apterus niger elytris striatis: punctis æneis bilobis excavatis triplice serie.—*Fab. Ent. Syst.* 1. 19. 127.

Carabus striatus.—*Degeer Inf.* 4. 90. 5. tab. 3. fig. 1.

Carabus gemmatus.—*Paykull Monogr.* 15. 6.

This species has commonly been mistaken for *Carabus hortensis*: the difference, however, between the two Insects, is considerable. The colour of this Beetle is black, glossed with a rich bronze, partaking of a green and golden hue on the wing cases, and a fine purple on the thorax: the underside is plain black.

F I G. III.

CARABUS GRANULATUS.

COLEOPTERA.

CARABUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Apterous, black, bronzed. Wing cases striated; three rows of elevated, or convexed-oblong spots, with an intermediate elevated line on each.

CARABUS GRANULATUS apterus nigricans elytris æneis striatis interiectis punctis elevatis longitudinalibus.—*Lin. Syst. Nat.*—*Fab. Ent. Syst.* 1. 130. 28.

Carabus granulatus.—*Paykull Monogr.* 19. 9.

Degeer Inf. 4. 88. 2.

Sulz. Hist. Inf. tab. 7. fig. 2.

Schæff. Icon. tab. 18. fig. 6. ♂ *tab.* 15. 6. fig. 1.

Some authors say, this species is very common in the fields near London. It is often found in Battersea meadows; and we have not found it elsewhere.





P L A T E CCXXIII.

FIG. I.

PHALÆNA DERASA.

BUFF ARCHES MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Crested: anterior wings buff colour, with small arched markings.

NOCTUA DERASA: cristata, alis deflexis, anticis supra decorticatis.

Fab. Syst. Ent. 609. 80.—*Spec. Inf.* 2. 229. 103.—

Ent. Syst. 3. p. 2. 85. 250.

Phalæna derafa. *Linn. Syst. Nat.* 2. 851. 158.

Phalæna pyritoides. *Naturf.* 2. tab. 1. fig. 7. (mas).

Borkhausen, *enr. Schmett.* 4. T. n. 281, p. 657.

Die Himbeerule. Der Wischflügel. *Panz. Faun. Inf. Germ.*

A rare species, is found in the moth state early in August.

The larva of this phalæna is unknown to us, and has neither been figured or described in any of the entomological works recently published. The notes of Harris are not altogether satisfactory; he mentions the time of its changing from the caterpillar to the pupa, but has given no figure or description of either. The entomologists of Germany, where the moth is not scarce, seem unacquainted with its metamorphosis. Fabricius, the latest writer on the subject, has described only the perfect insect.

FIG. II.

PHALÆNA TRAGOPOGINIS.

GOAT'S-BEARD MOTH.

LEPIDOPTERA.

PHALÆNA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Anterior wings dark brown, with three approximate black dots in the middle, posterior pair livid.

NOCTUA TRAGOGNIS: crista, alis deflexis, anticis fuscis, punctis nigris tribus approximatis, posticis lividus. *Fab. Syst. Ent.* 615. 107.—*Spec. Inf.* 2. 237.—*Ent. Syst.* 3. p. 2. 112. 336.

Phalæna Tragopoginis. *Lin. Syst. Nat.* 2. 855. 177.—*Fn. Sv.* 1189.

Phalæna

Phalæna antennis filiformibus, alis deflexis fuscis nitidis, punctis tribus centralibus nigris, capite flavo. *Degeer Inf. Verf. Germ.* 2. 1. 303. 10. *tab.* 7. *fig.* 15.

Found on the Goat's beard, Spinach, and Docks.—Our specimen was taken in June.

FIG. III.

PHALÆNA LICHENES.

LIVER-WORT MOTH.

LEPIDOPTERA.

PHALÆNA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested : anterior wings greenish, varied with black marks : beneath fuscous.

NOCTUA LICHENES : cristata, alis deflexis : anticis viridibus, maculis variis atris, subtus fuscis. *Fab. Syst. Ent.* 614. 102.—*Spec. Inf.* 2. 235. 127.—*Ent. Syst.* 3. p. 2. p. 104. 312.

Noctua glandifera.. *Wien. Verz.* 70. 2.

We have found this species against walls on which the *Lichen fusco-ater* was growing. The larva is supposed to feed on plants of that genus. One specimen was found in October, another early in the spring, from which we conclude there must be two broods of them in the year.



P L A T E CCXXIV.

PHALÆNA NUPTA.

RED UNDERWING MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested: anterior wings cinereous, varied with brown: posterior pair red, with two broad black bands: abdomen hoary, beneath white.

PHALÆNA NUPTA cristata alis planis cinerascens: posticis rubris; fasciis nigris, abdomine cano subtus albo. *Linn. Syst. Nat.* 2. 841. 119.

Wilks pap. 33. tab. 1. a. 1.

Rœf. Inf. 1. phal. 2. tab. 15.

The larva of the Red Underwing Moth feeds on the willow: it is found in that state in June and July. The Fly appears in August, after having remained in the pupa state about twenty-one days.

Collectors of English Insects enumerate near twenty species of *Phalæna* under the trivial distinctions of *yellow underwing*, *copper underwing*, *orange underwing*, *pink underwing*, &c. &c. Among these the most conspicuous both for beauty and magnitude, are the *red underwing*, and *crimson underwing*. The first is by no means uncommon in the winged state. The latter is very rare, or at least a local species: it is found in the larva state on the tops of the highest oaks in Richmond Park, and was formerly found in similar situations in Burnt Wood, Essex. We are not informed that it has been taken in any other part of this kingdom.

These two species have been confounded with a third sort that is found in some parts of Europe, but does not, we have every reason to conclude, inhabit this country. This is the *Noctua Pacta* of Linnæus and Fabricius. Linnæus himself, in the first editions of the *Systema Natura*, considered the Red Underwing Moth, figured by Roefel, tab. 15, as the *Phalæna Pacta*, and adds it in his Synonyms; but it appears corrected in the later editions*.

After that time, Harris, in his *Aurelian*, and other works, called the *Red Underwing* *Phalæna Pacta*, and the *Crimson Underwing* *Phalæna Nupta*. And Dr. Berkenhout, following Harris, or inattentive to the express language of the author he translated, has made the same error in his *Synopsis of the Natural History of Great Britain*†. Indeed, it may be doubted, whether any later English work on Insects has detected the error; for, examining a little tract of Mr. Matthew Martin, of the Bath Society, published in 1785, we find the Red Underwing called therein *Phalæna Pacta*.

To place our remarks in a clear point of view, we need only quote the descriptions of Linnæus:—"NOCTUA PACTA Cristata alis griseiscentibus subundatis: posticis rubris; fasciis duabus nigris. *Abdomine supra rubro.*" And again in the general description:

* Corrected after 1759.

† Not corrected in the last edition.

“ *Abdomen supra roseum.*” Without adverting to the other characteristic marks, this proves that the Linnæan species of *Paſta* cannot be the ſame with that of the authors before quoted, becauſe in their ſpecies the upper part of the abdomen is hoary, inclining to brown, and not red*. Their *Phalæna Paſta* can be no other than the *Phalæna Nupta* of Linnæus and Fabricius; the precise ſpecies repreſented in our plate: of which Linnæus and Fabricius ſay: “ *Habitat in Europæ Salice Vitellina;*” and of the *Phalæna Paſta* and *Sponſa*, “ *Habitat in Europæ Quercu.*” The firſt lives on willows, the two others on oaks.

We cloſe our remarks with obſerving, that the above quoted Engliſh authors have been no leſs miſtaken as to *Phalæna Nupta*, which they have made the Crimſon Underwing Moth. We have before expreſſed our doubt whether *Phalæna Paſta* has ever been found in this country;—we add, that the Inſect, known to Engliſh collectors by the trivial name of Crimſon Underwing, is the *Phalæna ſponſa* of Linnæus and Fabricius †, and conſequently not connected in the leaſt with *Phalæna Nupta*.

The readers of the works of Harris, Berkenhout, &c. are requeſted to read

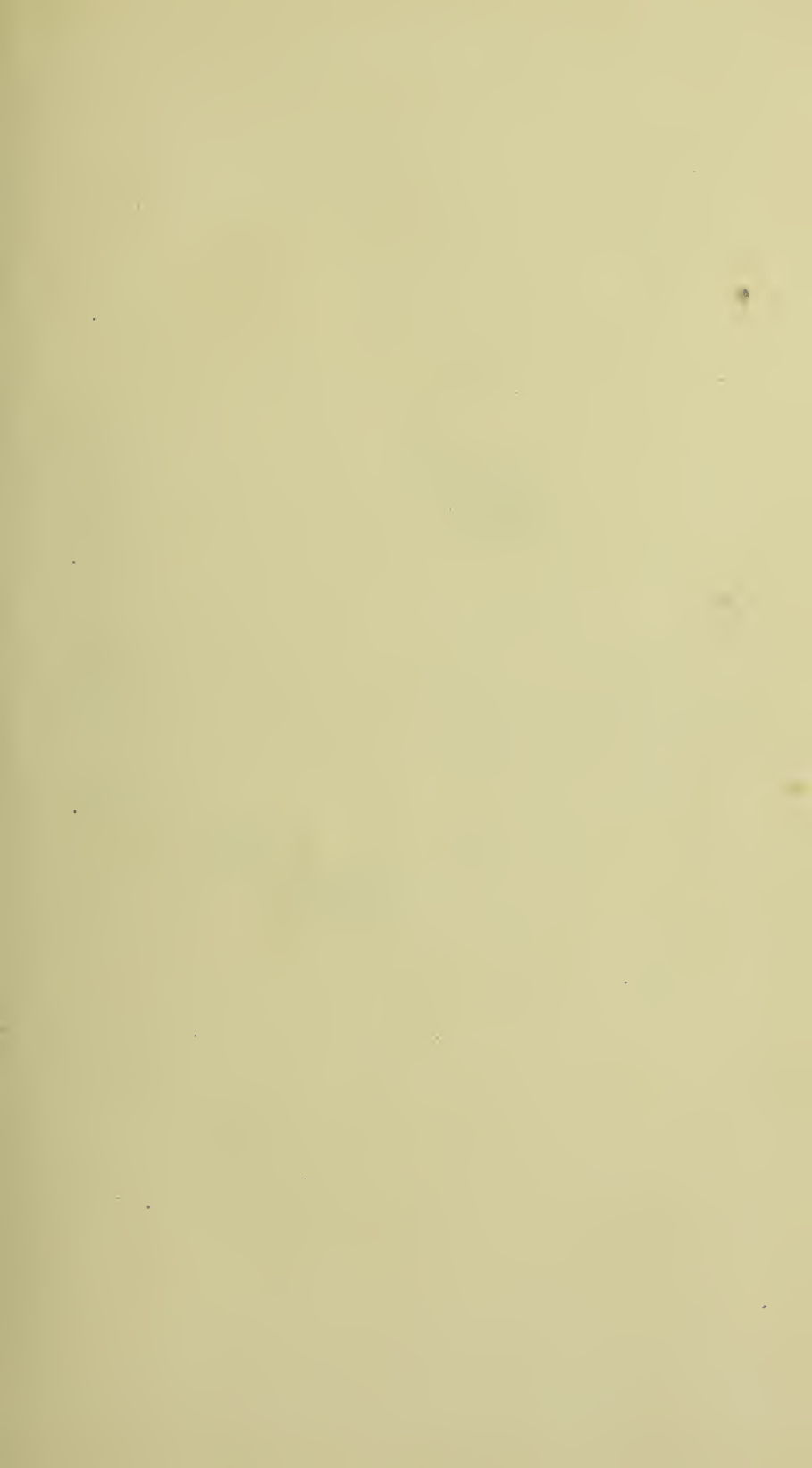
For *Phalæna Nupta*, *Phalæna Sponſa*, Crimſon Underwing Moth.

For *Phalæna Paſta*, *Phalæna Nupta*, Willow red Underwing Moth.

And finally, remove *Phalæna Paſta* from the liſt of Britiſh ſpecies, till it is proved to be a native of this country.

* Berkenhout ſays the abdomen is reddiſh above; but by this he only encreaſes the miſtake; for his ſpecies agrees in every other reſpect with the Willow Moth, on which plant he alſo ſays it is found. Page 140. Vol. I.

† Vide *Entomologia Systematica*. Vol. III. p. 2. p. 53. 147.







P L A T E C C X X V .

S I R E X S P E C T R U M .

BLACK-BODIED TAILED-WASP.

HYMENOPTERA.

Wings four, membranaceous in general. Tail of the females armed with a sting.

GENERIC CHARACTER.

Mouth with a thick, horny, truncate, short, denticulate mandible: feelers four, the hind ones longer and thicker upwards: antennæ, filiform, of more than twenty-four equal articulations: sting exerted, ferrated, and stiff: abdomen sessile, terminated in a point: wings lanceolate, incumbent, the lower-ones shorter.

SPECIFIC CHARACTER

AND

SYNONYMS.

Abdomen black: thorax rather hairy, a yellow stripe on each side before the base of the wing.

SIREX SPECTRUM: abdomine atro, thorace villoso, litura ante alas lutea. *Fab. Syst. Ent.* 3. 26.—*Spec. Inf.* 1. p. 419. 109. 6.

Sirex spectrum. *Lin. Syst. Nat.* 2. 929. 3.—*Fn. Sv.* 1574.—*Degeer. Inf.* 1. tab. 36. fig. 6.—*Schæf. Icon. tab.* 4. fig. 9. 10.

This

This species bears much resemblance to some Insects of the Ichneumon genus. We have found it among the leaves of the horseradish in June.

All the *sirices* are rare in England. *Sirex spectrum* is an active and vigorous creature, and which cannot be taken without danger of its stinging. The sting is small, and fine as a needle, but formed of such hard or horny substance, that it will pierce the finger to the bone.



P L A T E C C X X V I .

VESPA VULGARIS.

COMMON WASP.

· HYMENOPTERA.

Wings 4, membranous in general. Tail of the female armed with a sting.

GENERIC CHARACTER.

Mouth horny, with a compressed jaw : feelers four, unequal and filiform : antennæ filiform, the first joint longer and cylindrical : eyes lunar : body glabrous : upper wings folded in each sex : sting pungent, and concealed in the abdomen.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax with a yellow interrupted line on each side : scutellum with four yellow spots : abdomen yellow, with distinct black dots on the incisures.

VESPA VULGARIS : thorace utrinque lineola interrupta, scutello quadrimaculato, abdominis incisuris punctis nigris distinctis. *Fab. Syst. Ent.* 364. 9.—*Spec. Inf.* 1. 460. 9.—*Lin. Syst. Nat.* 2. 949. 4.—*Fn. Sv.* 1671.

Vespa nigra luteaque, antennis totis nigris. *Degeer Inf.* 2. 2. 111. tab. 26. fig. 7.

Vespa thorace lineolis trium parium differentium flauves centium. *Geoff. Inf.* 2. 269. 2.

Schæff.

Schæff. Elem. tab. 130.

—— *Icon. tab. 35. fig. 4.*

Reaum. Inf. 6. tab. 12. fig. 7. 8.

Most insects of the wasp genus, like those of the bee tribe, construct nests in which they deposit their eggs and rear their young. Some species are however solitary, and each individual of this kind forms a nest for itself.

The common wasp is one of the social species: they collect the nectar of flowers, and make honey, which is of an inferior quality to that of bees. They also subsist on the juices of fruits, and devour insects. The transformation of the wasps and bees are similar.



PLATE CCXXVII.

PHALÆNA MONACHA.

BLACK ARCHES MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings white, with black arches : abdomen with red incifures.

PHALÆNA MONACHA : alis deflexis albis atro undatis, abdominis incifuris sanguineis. *Lin. Syst. Nat.* 2. 821. 43.—
Fn. Sv. 1130.—*Fab. Ent. Syst. T.* 3. p. 1. 446. 119.
Wien. Verz. 52. 5.
Wilks pap. 19. tab. 3. a. 4.
Schæff. Icon. tab. 68. fig. 2, 3.

We have in few instances been able to present a species of Phalæna, with all its metamorphosis, more deserving attention than the Black Arches Moth. It is uncommonly rare in the winged state, and its larva and pupa is, we presume, unknown to the English Entomologists at this time. We imagine Harris met with, and bred
this

this Insect, though he has not figured it: he says it fed on the Oak, that it changed into chrysalis June 9th, and appeared in the winged state July 9th, a statement nearly corresponding with the later observation of others.

The larva is rather a general feeder; for though Harris mentions only Oak, we found that it would not refuse the leaves of fruit-trees, such as Apples, pears, &c.; it feeds also on the Willow and Sallow. The female is larger than the male, and has antennæ like bristles.



P L A T E CCXXVIII.

SPHINX CONVULVULI.

BIND-WEED HAWK MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ somewhat prism-form, and thickest in the middle: tongue exerted: wings, when at rest, deflected. Fly slow, morning and evening only.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings entire, clouded: posterior pair with transverse bands: abdomen belted with alternate marks of red, black, and white.

SPHINX CONVULVULI: alis integris nebulosis: posticis subfasciatis, abdomine cingulis rubris atris albisque. *Linn. Syst. Nat.* 2. 798. 6.—*Fab. Ent. Syst.* I. 2. p. 1. 374. 54.

Geoff. In. 286. 9.

Roef. Phal. 1. tab. 7.

Sepp. Inf. 3. 19. tab. 4.

Merian. Europ. 39. tab. 75. fig. 2.

Cramer Inf. 19. tab. 225. fig. D.

Welks pap. 10. tab. 1. 6. 2.

Esp. Inf. 2. tab. 5.

Dury Inf. 1. tab. 25. fig. 4

This

This is the largest of the Hawk Moths that inhabits Great Britain, except *Sphinx ligustri* and *Sphinx Atropos*. It is rarely taken in this country; the curious in English Insects have them from Germany, where the species is more common than with us.

A beautiful variety (as it is supposed) of this Insect is found in North America: the wings are more richly varied with different shades of brown than the former; the posterior wings are of a fine rose-colour. It has all the characteristic marks of *Sphinx Convolvuli*, or we should hesitate to admit it as the same species. We received it from Mr. Abbot, in whose folio work it is also figured; he found it on the Wild Vine. Mr. Drury had the same variety sent to him from St. Christopher's.



P L A T E CCXXIX.

THE
 LARVA AND PUPA
 OF
 SPHINX CONVULVULI,
 BIND WEED HAWK MOTH.

We have not been so fortunate as to meet with the larva of this rare Insect; nor can we learn that it has been taken by any Collector of English Insects for many years. One specimen was said to be taken, in the winged state, in the fields near Hoxton about two years ago.

To perfect the History of this species, we have copied the Figures of the Caterpillar and Pupa, from N° 7, *Der Nacht-Vogel*, &c. &c. of Roefel's *Insecten Bellustigung*, Vol. I.

Our readers will observe that the Fly produced from the Caterpillars represented by Roefel is nearly one-third larger than the specimens supposed to be bred in England; the Caterpillars must therefore be larger in the same proportion in the specimens found in Germany.—The Caterpillars are of two colours, one green with stripes of yellow and spots of black; the other dull brown with ochre coloured stripes, and sides of the same. The Caterpillar figured by Abbot has a rose-coloured band on the side.



P L A T E CCXXX.

FIG. I.

PHALÆNA MAURA.

OLD LADY MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax crested : wings incumbent, exterior margins dentated, ash-colour, varied with black : margin beneath white.

NOCTUA MAURA cristata, alis incumbentibus dentatis, cinereo nigroque variis, subtus margine albo. *Fab. Syst. Ent.* 604. 61.—*Spec. Inf.* 2. 224. 81.—*Ent. Syst.* 3. p. 2. 63. 174.

Phalæna maura spirilinguis cristata, alis depressis dentatis fasciis duabus nigris, inferioribus nigris, fascia alba. *Linn. Syst. Nat.* 2. 843. 124.

Phalæna Lemur *Naturf.* 6. tab. 5. fig. 1.
Schæff. Icon. tab. 1. fig. 5. 6.

This grave Moth appears in the month of August : it frequents old houses in evenings.—From its dingy appearance it is usually called the Old Lady.

FIG. II.

PHALÆNA LUCIPARA.

SCARCE ANGLE SHADES MOTH.

LEPIDOPTERA.

PHALÆNA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Crested: wings deflected, cinereous, and glossy, a broad fuscous band in the middle.

NOCTUA LUCIPARA cristata, alis deflexis cinereo nitidis, fascia media lata fusca. *Fab. Spec. Inf.* 2. 233. 121.—
Ent. Syst. 3. p. 2. p. 99. 244.

Phalæna lucipara spirilinguis cristata, alis purpurascentibus lucidis, fascia nigra, stigmatе postico flavo. *Linn. Syst. Nat.* 2. 857. 187.—*Fn. Sv.* 1201.

The common Angle shades Moth, (*Phalæna Meticulosa*) is figured in a former part of this Work. *Phalæna Lucipara* is an Insect nearly allied to it; but is far more scarce: we have only met with the Specimen figured in the annexed Plate.—The Larva is supposed to feed on the internal substance of Willows. The Fly has also been observed among those trees.

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P L A T E CCXXXI.

FIG. I I.

ATTELABUS APIARIUS:

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform, thickest towards the apex, and seated on the snout: head pointed behind, and inclined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Slightly hairy: azure: wing-cases red, with three bars of blue, the third, terminal.

ATTELABUS APIARIUS: *Lin. Syst. Nat.* 2. 620. 10.

CLERUS APIARIUS: subnudus cyaneus elytris rubis: fasciis tribus cœrulescentibus: tertia terminali.—*Geoff. Inf.* 1. 304.
1. tab. 5. fig. 4.—*Fab. Ent. Syst.* 1. 209. 14.
Degeer. Inf. 5. 157. 1. tab. 5. fig. 3.
Sulz. Inf. tab. 4. fig. 6.

A very local species: we learn that it has been found near Manchester.

FIG. II.

ATTELABUS FORMICARIUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black: thorax red; wing-cafes, with two bars of white: base red,

ATTELABUS FORMICARIUS: *Linn. Syst. Nat.* 2. 620. 8.

Clerus formicarius. *Fab. Ent. Syst.* 1. p. 207. 27. 5.

—— niger thorace rufo, elytris fascia duplici alba basique rubris,
Degeer. Inf. 5. 160. 3. t. 5. f. 8.

Only a few species of this genus have been discovered in this country; and neither of those are very common. We apprehend *Attelabus Formicarius* is rare, having only met with one specimen of it. It was found in May, on a sand-bank, near Coome Wood, Surry.

FIG. III. III.

DERMESTES PELLIO.

GENERIC CHARACTER.

Antennæ terminated in a perfoliated club: the three extreme articulations thicker than the rest: thorax convex: slightly margined: head inflected, and almost concealed under the thorax.

SPECIFIC

SPECIFIC CHARACTER

AND

SYNONYMS.

Black : a white spot on each wing-case.

DERMESTES PELLIO : niger elytris puncto albo. *Lin. Syst. Nat.*
2. 563.—*Fn. Sv.* 411.

DERMESTES PELLIO. *Fab. Ent. Syst.* 1. p. 228. 5.
Oliv. Inf. 2. 9. 11. 10. *tab.* 2. *fig.* 11.
Schæff. Icon. tab. 42. *fig.* 4.

A very common and destructive creature. It insinuates itself into all kinds of fur, or the dried skins of animals; and in the state of larva, injures them considerably. The larvæ of this tribe of Insects soon become very numerous where they are suffered to breed: they enter into and destroy furniture, cloathing, and dried food of all kinds. Some species are found feeding upon the carcases of animals; while others, more tenacious of life, penetrate harder substances, and resist the verdigrease, musk, arsenic, and other drying or corrosive substances, that effectually destroy most Insects. One or two species are in particular much to be dreaded by Collectors of Natural Curiosities: they perforate the cabinet, or case, and when the larvæ are hatched, commit vast depredation. In collections of preserved animals, birds, insects, and plants in particular, they do great mischief.

FIG. IV. IV.

DERMESTES SCARABÆOIDES.

SPECIFIC CHARACTER

AND

SYNONYMS.

Ovate black : two red spots on the wing-cases.

DERMESTES SCARABÆOIDES. *Linn. Syst. Nat.* 2. 563. 17.—
Fn. Sv. 428.

SPHÆRIDIMUM SCARABÆOIDES: ovatum atrum elytris maculis
duabus ferrugineis. *Fab. Ent. Syst.* 1. 77. 6. 1.

Found in dung. Fabricius separates this species from the Dermestides, and places it in the new genus *Sphæridium*.



P L A T E CCXXXII.

PHALÆNA QUERCIFOLIA.

LAPPET MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

Bombyx.

SPECIFIC CHARACTER

AND

SYNONYMS:

Wings reversed, scalloped, red brown : mouth and flanks black.

PHALÆNA QUERCIFOLIA: alis reversis dentatis ferrugineis, ore tibiisque nigris. *Linn. Syst. Nat.* 2. 812. 18.
Fn. Sv. 1110.

BOMBYX QUERCIFOLIA. *Fab. Ent. Syst. T.* 3. p. 1. 420. 42.
Roef. Inf. 1. *Phal.* 2. tab. 41.
Schæff. Icon. tab. 71. fig. 45.
Merian Europ. tab. 1. fig. 3.
Reaum. Inf. 2. tab. 23.
Sulz. Inf. tab. 16. fig. 93.
Albin. Inf. 1. tab. 16.

Phalæna Quercifolia is a rare and interesting Insect, and is the largest of the English bombyces, if we follow the arrangement of the *Entomologia Systematica* of Fabricius, and remove the Linnæan *Bombyx Cossus* * to a new genus †.

The trivial name Lappet Moth has been given to this species by some early Collectors of English Insects, because they observed, when the creature was at rest, and the wings expanded in a natural position, that the anterior part of the second pair *lapped* over the first, instead of the first pair reposing on the second, as in many other species of *Phalæna*. This appearance is very striking, but not peculiar to *Phalæna Quercifolia*. *Bombyces*, with similar reversed wings, are numerous, and several of them natives of this country; as *Phal. Quercus*, *Potatoria*, &c.

In a former volume we have given The Pine Lappet Moth; an Insect that is extremely uncommon in Great Britain; that, with the present species, are the only two British *Phalæna* called Lappet Moths; another Insect closely allied to *P. Quercifolia*, and supposed to be the *Phal. Populifolia*, is said to be an English Insect, but on what authority we are not informed. The very different appearances of the larva of *Phal. Quercifolia* in different stages of its growth, may possibly have caused some mistake; for in one skin they are brown, with whitish marks; in another greyish, with dark brown marks; and when of a full size, are more inclined to brown and grey in some specimens than in others. Notwithstanding, however, the variation of colours, in all its changes, we find that the two oval blue marks on the second and third segment of the body are constant, and sufficient to determine the species. The larva of *Bombyx Populifolia* is very similar to that of *B. Quercifolia*, when young, if we may judge by the only figure of it extant, but the mark across the second segment is narrow and black; that on the third segment broader, with two semi-lunated red spots.—*Vide Kleeman's Beytraege, &c. Vol. 3. tab. 14.*

* Goat Moth.

† *Cossus ligniperda*.—*Fab.*

The larva of *P. Quercifolia* we have taken in Darent Wood, Kent, on the grafs; it feeds alfo on Willow, Blackthorn, and Whitethorn. At the end of April, or not later than May, it forms a large and loofe spinning interwoven with its hairs, of black, reddifh, and grey colours. The pupa is black, but appears perfectly white, being covered with a fine white pollen, or powder; each fegment is encircled by a belt, of a red colour. In July and Auguft it is found in the Fly ftate.

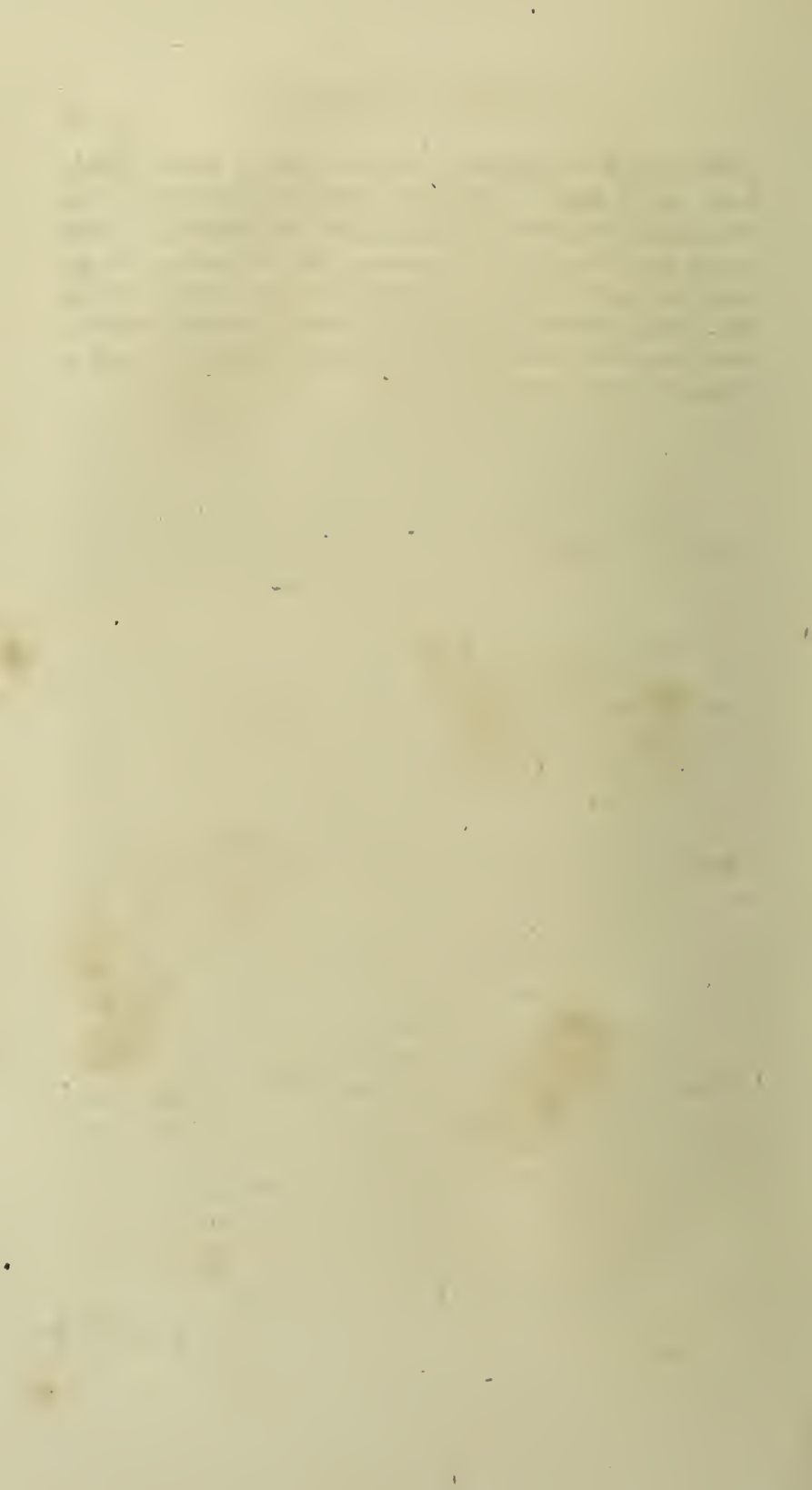




PLATE CCXXXIII.

PHALÆNA PRUNARIA.

PHŒNIX MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly in the night.

Geometra.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ fetaceous : anterior wings varied brown and grey, with two broad pale waved bands, the posterior one nearly terminal.

PHALÆNA PRUNARIA : feticornis alis griseo fuscis : fasciis duabus pallidis repandis : postica semiterminali, *Linn. Syst. Nat.* 2. §69. 250.—*Fn. Sv.* 1267.—*Fab. Ent. Syst.* 3. p. 2. p. 178. 175.

Wien. Verz. 115. 19.

Clerk. Phal. tab. 7. fig. 3.

Ammiral. Inf. tab. 23. fig. 1. 4.

Fabricius describes the larva of this rare Moth :—It is ash-coloured, with a black collar or mark on the neck : feet reddish brown, and the black spotted with the same colour.

The

The trivial English name, Phoenix Moth, has been given to this Insect from a circumstance little known, and scarcely deserving notice, except as it proves the impropriety of naming Insects from local circumstances, when any other can be well applied. A small part of a wood near London had been cut down, and a quantity of charcoal made on the spot. This place had been often visited by Aurelians, but the *Phælæna Prunaria* had never been discovered there, nor indeed was then known as a British Insect. On the following year, when the ground was cleared, and the underwood grown up, this Moth was found; it continued to be taken constantly in the months of June and July for many years, in this place, and then totally disappeared. The late Mr. Bentley, known as a collector of English Insects, discovered a breeding-place of this Moth on Epping Forest, and commonly found three or four specimens every season. We are now certain that it occurs, in abundance in various other parts of the kingdom. It feeds on the thorn, plumb, and currant.

FIG. II. II.

PHALÆNA DUPLICATA.

SPECIFIC CHARACTER

AND

SYNONYMS.

First wings grey, with three transverse fuscous waved lines.

PHALÆNA DUPLICATA: feticornis, alis griseis, fasciis duabus trilineatis fuscis. *Fab. Ent. Syst.* 3. p. 2. p. 193. 234.

PHALÆNA PLAGIATA: feticornis, alis anticis canis: fasciis tribus trilineatis nigricantibus repandis. *Linn. Syst. Nat.*—*Fn. Sv.* p. 334. n. 1271.

Phal.

Phal. Plagiata. Das doppelte Band. *Berlin. Mag.* 4. *B.* p. 522.
n. 38.

Schæff. Icon. tab. 12. *fig.* 1. 2.

Clerk. Icon. tab. 6. *fig.* 1.

Roffi Faun. Etr. T. 2. p. 194. n. 1170.

Found in June. It is rare, and we believe has not been met with in the larva state in this country. Continental authors say the larva is brown, variegated with red, and has a yellow line on each side. *Kleemann* has not figured the larva with the Moth in his Supplement of the rare Insects found in Germany.

FIG. III.

PHALÆNA VESPERTARIA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ feathered: wings yellowish: two dark waved streaks on the first pair; one on the second pair: the space between the streaks and margins of the wings, dark.

PHALÆNA VESPERTARIA pectinicornis alis flavescens: strigis duabus; posteriore limbum obscurum determinante.

Linn. Syst. Nat. 2. 864. 224.

Fab. Ent. Syst. 3. p. 2. 149. 74.

Phalæna parallelaria. *Wien. Verz.* 104. 15.

Found in Hornsey-Wood in July, and also in Norwood.

FIG.

FIG. IV.

PHALÆNA CHÆROPHYLLATA.

GREAT CHIMNEY-SWEEPER.

SPECIFIC CHARACTER

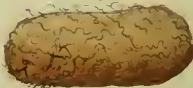
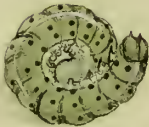
AND

SYNONYMS.

Antennæ fetaceous: wings black erect: first pair white at the tips.

PHALÆNA CHÆROPHYLLATA feticornis atra alis erectis: anticis apice albis. *Linn. Syst. Nat.* 866. 237.—*Fab. Ent. Syst. I.* 3. p. 2. 184. 200.
Wien. Verz. 116. 1.

Appears in the winged state late in July. Is produced from a green caterpillar, which feeds on *Cherophyllum Silvestre*, or wild cicely.



P L A T E C C X X X I V .

TENTHREDO LUTEA.

YELLOW SAW-FLY.

HYMENOPTERA.

Wings four, generally membranous. Tail of the females armed with a sting.

G E N E R I C C H A R A C T E R .

Mouth with a horny curved mandible, toothed within, the jaw straight, and obtuse at the tip, the lip cylindrical and trifid: feelers four, unequal and filiform: wings tumid, the lower ones less: sting composed of two ferrated laminæ, and almost secreted: stemmata three.

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

Antennæ clubbed, yellow. Abdomen yellow, with the second segment black.

TENTHREDO LUTEA: antennis clavatis luteis, abdominis segmentis plerisque flavis. *Linn. Syst. Nat.* 2. 921. 3.—*Fn. Sv.* 1534.

Fab. Ent. Syst. 1. 2. p. 105. 138. 3.

Roef. Inf. 2. *Vist.* tab. 13.

Schæff. Icon. tab. 103. fig. 1. 3.

Degeer. Inf. 2. 2. 223. 7. tab. 33. fig. 8. 16.

Very uncommon in this country. The larva has been found on the Willow, but unless taken when ready to become a pupa, it is impossible to rear it to the winged state. We are little acquainted with the peculiar habits of these Insects, and cannot therefore feed them in a proper manner.

Most of the Tenthredines enshroud themselves in a net-work covering, and remain in the earth till the Fly burst forth; others fasten the web against the branches of trees, or on the trunk near the earth. The habits of *Tenthredo lutea* are very similar to those of *T. Vitellinæ*; the winged Insect appears in June,



P L A T E CCXXXV.

CHRYISIS CYANEA.

HYMENOPTERA.

Wings four: generally membranous. Tail of the females armed with a sting.

GENERIC CHARACTER.

Mouth horny, projecting: jaw linear, membranaceous and emarginate at the tip: no tongue: feelers four, unequal and filiform: antennæ short and filiform, and of twelve articulations, the first longer: body golden and polished: abdomen arched beneath with a scale on each side: tail generally toothed: sting pungent, nearly concealed: wings flat.

SPECIFIC CHARACTER

AND

SYNONYMS.

Glossy, shining, thorax and abdomen blue: tail tridentate.

CHRYISIS CYANEA: glabra nitens thorace abdominisque cæruleis, ano tridentato. *Linn. Syst. Nat.* 2. 948. 5.—*Fn. Sv.* 1667.

Fab. Ent. Syst. 2. 147. p. 243. 20.

Vespa cærulea nitens. Geoff. Inf. 2. 484. 23.—*Schæff. Icon.* tab. 81. fig. 5.

The natural size of this Insect is given at Fig. I. in the annexed Plate. It is far inferior in beauty to either *Chrysis ignita* or *bidentata*, figured in the early part of this work; but as the genus is very limited, we have given a figure of this species. It is an abundant on all kinds of fruit-trees in the summer.



PLATE CCXXXVI.

FIG. I. I.

PAPILIO CORYDON.

CHALK-HILL BLUE BUTTERFLY.

GENERIC CHARACTER.

Antennæ clavated at the tip : wings erect when at rest. Fly by day.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings entire, above silvery or pale blue, with a black margin : beneath grey, with eye-shaped spots.

HESPERIA CORYDON : alis integris cæruleo argenteis : margine nigro, subtus cinereis : punctis ocellaribus, posticis macula centrali alba. *Fab. Ent. Syst.* 3. p. 1. p. 298. 133.

PAPILIO CORYDON. *Wien. Verz.* 184. 10.

PAPILIO CORYDON. *Esp. pap. tab.* 33. fig. 4.

PAPILIO TIPHYS. *Esp. pap. tab.* 51. fig. 4.

Found on the chalk-hills between Dartford and Rochester ; particularly on a long range of hillocks leading from Dartford to the wood of Darent ; and hence the Butterfly has been called the Chalk-hill blue. We believe it has not been found in any other part near London. The larva is unknown, it appears in the winged state, the first and second week in July.

FIG. II. II.

PAPILIO LINEA.

SMALL SKIPPER BUTTERFLY.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings entire, fulvous, divaricated, margin black.

HESPERIA LINEA: alis integerrimis divaricatis fulvis: margine nigro. *Fab. Ent. Syst.* 3. p. 1. 326.

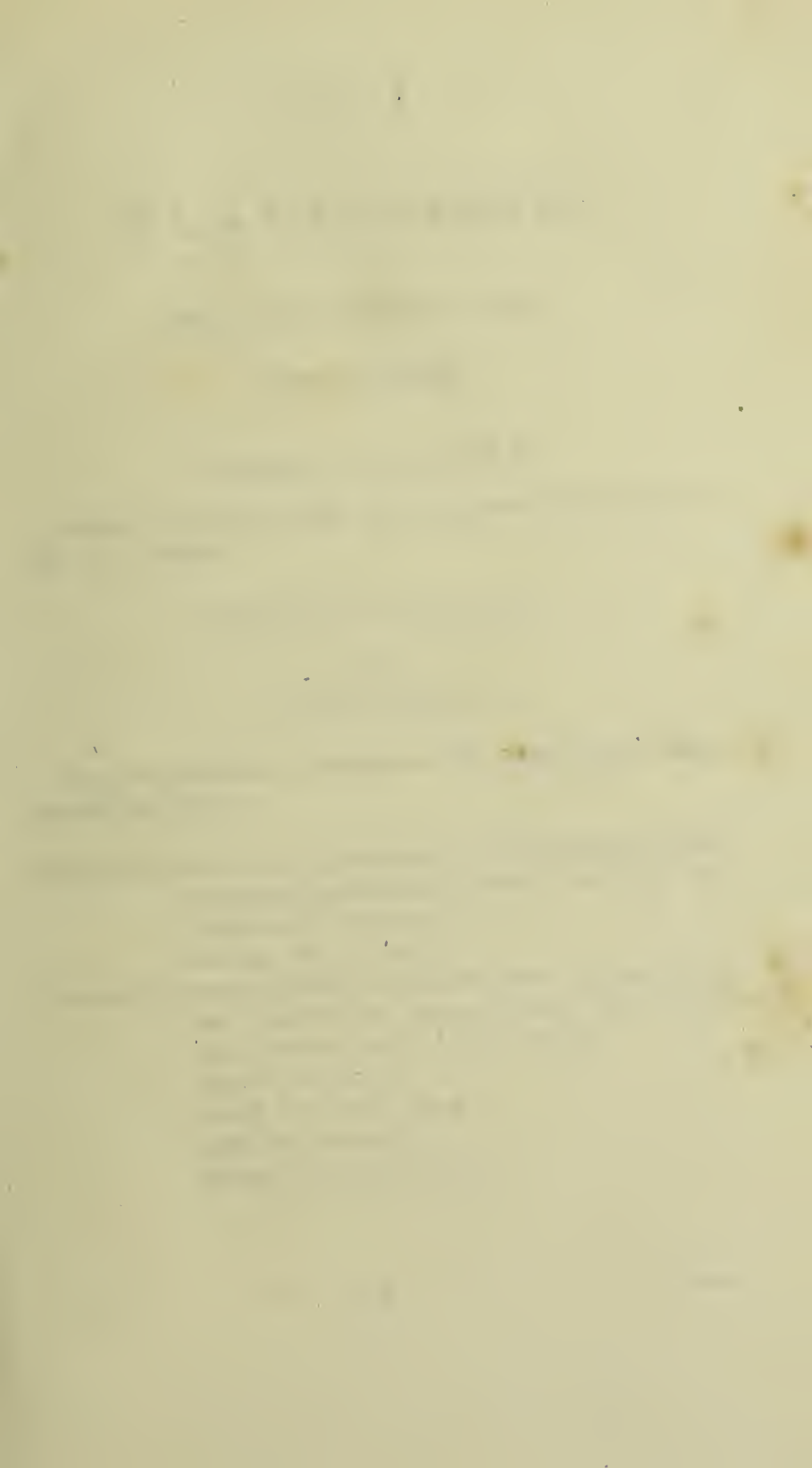
PAPILIO LINEA. *Wien. Verz.* 159. 5.

PAPILIO THAUMAS. *Esp. pap. tab.* 36. fig. 2. 3.

PAPILIO SYLVESTRIS. *Pod. Mus.*

A very generally diffused species, but not common; it is similar to the *Papilio Sylvanus* of Linnæus, or *Hesperia Sylvanus* of Fabricius, which is found in the greatest abundance in the skirts of woods during summer. Its transformations are unknown.





P L A T E CCXXXVII.

PHALÆNA BETULARIA.

PEPPERED MOTH.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ pectinated, with setaceous tip : wings entirely white, speckled with black,

PHALÆNA BETULARIA: pectinicornis, alis omnibus albis, thorace fascia nigra, antennis apice setaceis. *Linn. Syst. Nat.* 2. 862. 217. *Fn. Sv.* 1287.

Fab. Spec. Inf. 2. 252. 56.

PHALÆNA antennis pectinatis, alis horizontalibus albis nigro punctatis maculatisque, thorace faciato. *Degeer. Inf.* *Verz. Germ.* 2. 1. 250. 1. tab. 5. fig. 18.

Ammiral. Inf. tab. 21.

Schæff. Icon. tab. 88. fig. 4. 5.

Albin. Inf. tab. 91, 92.

Kleman. Inf. 1. tab. 39. fig. 6.

Found on the Lime, Willow, and Elm in the state of Larva, changes to the Pupa in September; and the Moth appears in May. The Larva of this creature differ very much in their shades of colour; they are generally blackish or dark olive with a few obscure red spots.



P L A T E CCXXXVIII.

FIG. I. I.

PAPILIO HYALE.

CLOUDED YELLOW BUTTERFLY.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ clavated : wings erect when at rest. Fly by day.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings rounded, yellow : an orange spot on the posterior wings : beneath, a large and smaller contiguous dot of silver.

PAPILIO HYALE : alis rotundatis flavis : posticis macula fulva ; fubtus puncto fequialtero argentes. *Linn. Syst. Nat.* 2. 764. 100.

Though we cannot but admire the Linnæan definitions for their perspicuity in general ; we must in some instances blame him for that inattention which has betrayed succeeding naturalists into error
and

and even absurdities. The force of this remark, however harsh it may appear, will apply in a particular degree to the specific definition and quoted Synonyms of *Papilio Hyale*, and consequently to two other similar species involved in the same error.

Linnæus gave the description of *Papilio Hyale*, as above quoted in the *Systema Naturæ*, from an insect in his own cabinet, and quotes, in the Synonyms, the Butterfly figured by *Roefel*, Vol. 3. tab. 46. fig. 4. 5. The works of this author being known in every part of Europe, the entomologists of that time received the figure as that of the true *Hyale*; and relying on the accuracy of the Linnæan references, the mistake has been overlooked to the present period. Fabricius, who is the latest systematic writer on this science, quotes the figures in *Roefel*, as Linnæus had himself in the first instance; and he also refers to figures of the same insect in the works of Cramer and Schæffer. An error of such specious appearance could only be detected by a reference to the specimen in the Linnæan Cabinet, at this time in the possession of Dr. Smith, and from this it appears that every author has mistaken the species intended by Linnæus, and that Linnæus was himself mistaken in supposing the insect described to be the same as that figured by *Roefel*, to which he refers: that the Linnæan *Papilio Hyale* is what later authors have considered as *Papilio Palæno*, and that the true *Papilio Palæno* is not a British species.

These errors are so complicated that we must examine the characters assigned to each species with the utmost attention, and we shall then find his descriptions correct, but the synonyms erroneous. *Papilio Hyale* is described with *yellow wings*; the colour of the wings in the supposed *Hyale* is not of that kind which Linnæus would have called yellow, (*flavis*,) but *fulvis*, being of a deep orange colour, much inclining to red. Either of these expressions will certainly admit of great latitude, but we must not therefore confound one with the other. The two silver spots are not constant, though it forms a part of the specific character; we have seen in both the clouded yellow and clouded orange butterflies, sometimes only one spot, though in general it has two. On the whole, the Linnæan descrip-

description of *Papilio Hyale* seems to agree with the fictitious *P. Palæno* of our collections, and the specimen in the Linnæan cabinet places it beyond conjecture.

Fabricius has not corrected the errors of former authors on this subject; even in his last work, *Syst. Ent.* he adds to the specific description of his *P. Hyale*, “*Mas margine alarum nigro immaculato, fœmina maculato*”*, by this it is evident he alludes to the clouded orange, for it is not so in the Linnæan insect; the broad bar of black being constantly spotted in both sexes. We have also observed that the rare variety with white wings is only the female; that which is yellow is the male: the same is observed also of *Papilio Rhamni*, or Brimstone Butterfly; and as the males of all insects are more abundant than the females, and the males of *P. Hyale* are rare, the variety, or sex with white wings must be extremely so. These have been taken in a clover field in the month of August, in company with the clouded orange.

It may be proper to close this description with a few observations on the true *Papilio Palæno*, as the subject before us has hitherto passed under that name. Linnæus says, *alis integerrimis flavis apice nigris margineque fulvis: posticis subtus puncto argenteo*; this does not agree with, or at least expresses the Insect generally called *Palæno*, and the specimen in the Linnæan cabinet proves it to be a different species; the *P. Palæno* has no yellow spots on the black margins of the wings, and the spot in the centre of the anterior pair is small and shaped like a shuttle; its native place is unknown. A variety of the pale clouded yellow is found in America, and by mistake is sometimes placed in cabinets as a British species.

* The wings in the males have a broad black bar on the exterior margin; in the female the bar is spotted.

FIG. II.

PAPILIO EDUSA.

CLOUDED ORANGE BUTTERFLY.

LEPIDOPTERA.

PAPILIO.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings entire, fulvous, with dot and margin black: beneath greenish, with a black dot on the anterior wings, and silver one on the posterior.

PAPILIO EDUSA: alis integerrimis fulvis: puncto margineque nigris, subtus virescentibus: anticis puncto nigro, posticis argenteo. *Fab. Ent. Syst.* 3. p. 2. 206. 643.

If our observations on the preceding species are satisfactory and conclusive, the Insect before us must be a distinct species, and not the true *P. Hyale*, for which it has usually been received. This involves another interesting consideration, for Linnæus must have been acquainted with this species, as he refers to figures of it in several authors. It is probable he considered it as a variety, for it does not appear under another name in any part of his writings,

Fabricius

Fabricius has described a new species of butterfly, under the name *Edufa*, in his last work *Ent. Syst.* which seems to agree with our insect, and we are confirmed in our opinion by Mr. Jones of Chelsea, who assisted Fabricius with considerable information, and assures us it is certainly the *P. Edufa* of that author.

In a former part of this work we have given the male of this insect as *P. Hyale*: the annexed figure represents the female, having large yellow spots in the black border of the wings. Both this and the preceding species are figured by Esper, in the *Papiliones de l'Europe*; and by Schæffer, in the *Icones Rarissimæ*, &c.



P L A T E CCXXXIX.

FIG. I.

PHALÆNA TREPIDA?

SWALLOW PROMINENT MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings deflected with a single tooth on the back: anterior wings pale in the middle, brown next the margin, and streaked: a spot in the centre of the wing.

BOMBYX TREPIDA: alis deflexis dorso unidentatis: puncto medio ocellari strigaeque postica maculari fuscis. *Fab. Ent. Syst. 3. p. 1. 449. 130?*

Bombyx tremula. Wien. Verz. 49. 4.

The Swallow Prominent Moth is scarce, the larva is supposed to live under the bark of Willows, but it is more certain that the Moth is seldom found, except among those trees. In the day-time it has been seen against the trunk of trees, in the manner represented in the Plate.

We quote the authority of Fabricius with diffidence; his character is ambiguous; and cannot be positively defined by the very general description he has added to it.

FIG.

FIG. II.

PHALÆNA COMPRESSA

LEPIDOPTERA:

BOMBYX.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings compressed, white, in the middle grey, with a large common brown mark, and white lunule.

BOMBYX COMPRESSA: alis compresso adscendentibus niveis: macula communi fusca, centrali grisea; lunula alba,
Fab. Ent. Syst. 3. p. 2. 455. 149.

Phalæna spinula. *Wien. Verz.* 64. 6.

Panz. Faun. Germ. 1. tab. 6.

Not very uncommon in the month of June; it is called the Goose-egg Moth.



P L A T E C C X L .

M E L O E T E C T A .

C O L E O P T E R A .

G E N E R I C C H A R A C T E R .

Antennæ moniliform: thorax roundish: wing-cases soft and flexible: head inflected and gibbous.

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

Black: wing-cases nearly the length of the Abdomen: antennæ thickest in the middle.

M E L O E T E C T A : atra, elytris abdomine haud brevioribus, antennis medio crassissimis. *Panz. Faun. Inf. Germ.*

Der Maywurmkäfer mit ungewöhalich langen Flügeldecken.—
Panz. Ibid.

This is a rare Insect, and has not been described by Linnæus or Fabricius. It bears a distant resemblance to *Meloe Proscarabæus*; but the singular structure of the Antennæ will alone prove it a distinct species. The Antennæ in *Meloe Proscarabæus* are moniliform, or composed of several bead-like articulations, nearly of the same size: those of this new species are thickest in the middle; and in one point of view the fourth, fifth, and sixth articulations appear remarkably large and globular: in another, they seem writhed or distorted, and very concave; the succeeding joints are as in the former species.—The whole Insect has a shining blue gloss: *Meloe Pro-*

H

scarabæus

scarabæus is coal black. It is smaller, and the wing-cases nearly cover the Abdomen. In *Meloe Proscarabæus* the wing-cases are only one-third the length of the Abdomen.

In some Cabinets, this Insect is arranged with a new specific name *autumnalis*; but as we find it is not a non-descript, we prefer that, under which it has been already described. In this we not only avoid the confusion arising from a change of names, but reject one merely local for another expressive of its specific character.

Our specimens were found on Epping Forest, in July.



P L A T E C C X L I.

S P H I N X P O P U L I.

POPLAR HAWK MOTH.

LEPIDOPTERA.

G E N E R I C C H A R A C T E R.

Antennæ prism-form and thickest in the middle: tongue exerted: wings when at rest deflected.

S P E C I F I C C H A R A C T E R

AND

S Y N O N Y M S.

Wings reversed, dentated, grey: a white central spot on the anterior pair: posterior red at the base.

S P H I N X P O P U L I: Alis dentatis reversis griseis: anticis puncto albo, posticis basi ferrugineis. *Linn. Syst. Nat.* 2. 797. 2.—*Fn. Sv.* 1084.

Roes. Inf. 3. tab. 30.

Schæff. Icon. tab. 100.

Degeer. Inf. 1. tab. 8. fig. 5.

Sepp. Inf. 3. 3. tab. 1.

Albin. Inf. tab. 38. fig. C.

Wilks pap. 11. tab. B. C.

This beautiful Insect is very common in this country, and not less so in every other part of Europe: it feeds on the poplar and willow

willow in the larva state, and frequents those trees in the winged state also. About the month of September, the Larva or Caterpillars are full grown, and change to the Pupa: the Sphinx appears in May.



P L A T E C C X L I I .

PAPILIO CIXIA.

PLANTAIN FRITILLARY.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ clavated at the tip: wings erect, when at rest. Fly by day.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings dentated, brown, with black spots: beneath fulvous; lower wings with three whitish bands marked with black spots.

PAPILIO CIXIA: Alis dentatis fulvis nigro maculatis: posticis subtus fasciis tribus albidis nigro maculatis. *Linn.*
Syst. 2. 784. 205.—*Sv.* 1063.
Fab. Ent. Syst. 3. p. 2. 250. 779.
Roef. Inf. 4. tab. 13. fig. 4. 5.
Geoff. Inf. 2. 45. 12.
Wilks pap. 58. tab. 3. a. 8.
Esp. pap. 1. tab. 16. fig. 2.
Schæff. Icon. tab. 204. fig. 1. 2.

β. Papilio Delia, alis dentatis fulvo nigroque variis: posticis supra punctis quatuor ocellaribus, subtus albis: fasciis duabus fulvis; posteriore nigro punctata. *Linn. Fab.*

Papilio Delia. *Wiën. Verz.* 179. 6.

The larva is black, beset with spines and tufts of the same colour: the sides are marked with a double row of white spots, the feet red. It is found on the long plantain in April. The flies appear in May. This is the rarest of the British Fritillary Butterflies, if we except Papilio Lathonia, the Queen of Spain Butterfly.

FIG. II.

PAPILIO LUCINA.

DUKE OF BURGUNDY FRITILLARY.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings indented, dark fuscous with yellow-brown spots: posterior wings beneath with two rows of whitish spots.

PAPILIO LUCINA: Alis dentatis fuscis testaceo maculatis: subtus fasciis duabus macularum albidarum. *Linn. Syst. Nat.* 2. 784. 203.—*Fn. Sv.* 1001.
Fab. Ent. Syst. 3. p. 1. 250. 778,

Raj.

Raj. Inf. 122. 12.

Schæff. Icon. tab. 172. *fig.* 1. 2.

Petiv. Gazoph. tab. 16. *fig.* 10.

This pretty Insect is found in the winged state in May; the Larva is unknown.—Taken in Hornsey-wood.

THE HISTORY OF THE

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... ..



2



2



3



1



3



1

P L A T E CCXLIII.

F I G. I. I.

COCCINELLA 14 GUTTATA.

GENERIC CHARACTER.

Antennæ subclavated, truncated. Palpi club-formed, extreme articulation heart-shaped. Body hemispherical. Thorax and elytra margined.

SPECIFIC CHARACTER

AND

SYNONYMS.

Red, with fourteen white spots.

COCCINELLA 14 GUTTATA: coleoptris rubris, punctis albis quatuordecim. *Linn. Faun. Suec.* 492. *Syst. Nat.* p. 583. n. 34. *Fab. Ent. Syst.* 1. p. 284. n. 85.

This species is rather of a brown than red colour, as described by Linnæus. It is probably an uncommon Insect. The smallest figure 1 is the natural size.

K

F I G.

F I G. II. II.

COCCINELLA ANNULATA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Red. An oblong black ring across the wing-cases.

COCCINELLA ANNULATA: coleoptris rubris, macula subannulari nigra. *Linn. Syst. Nat. p. 579. n. 5. Fab. Ent. Syst. 1. p. 268. n. 14.*

Not a very common species.

F I G. III. III.

COCCINELLA CASSIDOIDES.

SPECIFIC CHARACTER.

Black with a red lunular mark, and a round spot of the same colour, on each of the wing-cases. Margin prominent.

COCCINELLA CASSIDOIDES: elytris nigris, lunulâ punctoquæ rubris, margine prominulo. *Marsham MS.*

This is a nondescript Insect. It was found in May.



P L A T E CCXLIV.

PAPILIO CAMILLA.

WHITE ADMIRABLE.

GENERIC CHARACTER.

Antennæ clubbed at the end. Wings erect, when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings dentated. Above, uniform dark brown, with a white band, and spots. Inner angle of the posterior wings red.

PAPILIO CAMILLA: alis dentatis fuscis subconcoloribus albo fasciatis maculatifque, angulo ani rubro. *Linn. Syst. Nat.* 2. 781. 187. *Roef.* 3. tab. 33. fig. 3. 4.

The White Admirable Butterfly feeds upon the common honey suckle or woodbine, and is found in the winged state in the months of June and July, in the skirts of woods; its habit is much the same as that of *P. Atalanta*, Red Admirable, but it is by no means so common.

This species has hitherto been deemed the *Papilio Camilla* of Linnæus, though it differs in a slight degree from the descriptions and figures of authors who describe only German or Swedish specimens of it. In the late editions of the *Systema Naturæ*, *P. Camilla* is described with *P. Sibilla*, a *Papilio* nearly allied to it, but which Linnæus considered as a distinct species; his description of *Camilla* expressly saying “*angulo ani rubro.*”—The *angulis ani*, of *P. Sibilla* *, not being of a red colour, removes it from the English species.

Fabricius is of a different opinion, and in dissenting from his authority it is incumbent to state our objections. In the *Species insectorum* of that author, the *P. Camilla* with the Linnæan specific character, is made a variety β of *Sibilla*. The synonyms of the two insects are ambiguous, and the references not more satisfactory. Among others he refers for *P. Sibilla*, to *Drury's Inf.* 2. tab. 16. fig. 1, 2,—to *Roefel Inf.* 3. tab. 70. fig. 1, 2, 3,—and to *Schæffer* 152 †. fig. 1, 2! The two last are perhaps the same species; the first is unquestionably different. For *P. Camilla* he refers to *Roefel* tab. 33. fig. 3, and this agrees with our specimen, except in the colours of the upper surface being somewhat paler; so that we may conclude our English Insect is not only the *P. Camilla* of Linnæus but also the β *Camilla* of Fabricius.

The ultimate opinion of Fabricius is however different, for in the *Entomologia Systematica* since published, *Camilla* and *Sibilla* stands a distinct species; and *Camilla* is thus described, “*alis dentatis atris coeruleo micantibus: fascia utrinque maculari alba, posticis subtus basi argentea immaculata.*” *Linn. Syst. Nat.* 2. 781. 187. *habitat in Austria.* Thus *P. Camilla* will no longer agree with our insect, nor with that figured by *Roefel*, plate 3. 3, fig. 3. But if we refer to the *Systema Naturæ* of Linnæus, we discover another error, for

* *Roefel's* figure, vol. 3. tab. 70. has an obscure red band entirely across the posterior wings.—*Schæffer's* figure has no trace of red on that part.

† Erratum.—Designed for 153—for 152 is the German variety of *Papilio Iris*, Purple Emperor Butterfly.

instead of the above quoted specific character, Linnæus only says, "Alis dentatis fuscis subconcoloribus albo fasciatis maculatisque, angulo ani rubro." p. 781. 187. and this is clearly our insect.— From this the whole of the Fabrician account is obviously a complicated error of description and synonyms, and without attempting to investigate it further, we shall speak of both species as they appear to us.

We consider the Common English Admirable, as the true *P. Camilla*; and that *Sibilla*, and not *Camilla* is the Austrian species, as we have received it from that country; it is *much darker* in the *upper surface*, and has a *row of shining blue spots* all round the wings: the *base of the posterior wings*, beneath *silvery* and *without spots*, as Fabricius describes his *Camilla*. Our insect on the contrary has *no row of blue spots* on the *upper surface*, but a *red spot* at the inner angle of the posterior wings; the *base of the lower wings* are also *silvery beneath*, but *has black spots* upon it. They differ in many other respects: these alone determine them to be two species, and ours to be the *Camilla* of Linnæus.

We have inspected the drawings of Mr. Jones, from which Fabricius describes most of his *Papiliones*, and are confirmed in our opinion.





I

1

P L A T E CCXLV.

CIMEX FLAVO-MARGINATUS.

GENERIC CHARACTER.

Rostrum inflected. Antennæ longer than the thorax, wings folded crosswise, thorax margined. Feet formed for running.

SPECIFIC CHARACTER.

Black, longitudinal line on the thorax. Scutellum, exterior margin of the elytra, and spot in the apex yellow.

CIMEX FLAVO-MARGINATUS niger, thoracis lateribus lineaque dorsali, scutello elytrorumque margine apiceque macula flavis.

A nondescript species: it was found on a thistle.

The line at fig. 1. denotes the natural size.



P L A T E CCXLVI.

FIG. I.

PHALÆNA PARTHENIAS.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general deflexed when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings deflexed. First pair with greyish waved bars across. Second pair orange-red, having a large triangular black spot at the interior edge.

PHALÆNA PARTHENIAS: *Linn. Syst. Nat.* 2. 835. 94. *Fn. Sv.* 1160.

BOMBYX VIDUA, alis deflexis fuscis: anticis cinereo subfasciatis, posticis macula bascos fasciaque rufis. *Fab. Ept. Syst. T.* 3. p. 1. 468, 190.

This species was described by Linnæus as *Phalæna Parthenias*; Fabricius alters it to *Vidua*. It is not figured by any author unless the *Ph. Geom.* *Glaucos fasciata Gözii*, figured in *Kleman. T.* 1. *tab.* 40. *fig.* 4, 5, be the same insect.

Found

Found on the white Poplar, (Populi Alba.) It is a rare Insect and has been taken in Hornsey Wood in May.

F I G. II.

PHALÆNA DUBITATA.

TISSUE MOTH.

SPECIFIC CHARACTER.

Antennæ setaceous, wings waved with brown grey and black. The nerves of the wings spotted with white.

PHALÆNA DUBITATA, feticornis alis obscuris fusco cinereoque undatis: nervis albo punctatis. *Fab. Ent. Syst. T. 3. p. 2. 168. 141.*

Phalæna dubitata. *Wien. Verz. 109. 3.*

The Tissue Moth is rarely met with near London. Our specimen was taken near Bath.



P L A T E CCXLVII.

PAPILIO PAPHIA.

SILVER STRIPE FRITILLARY BUTTERFLY.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ clubbed at the ends. Wings erect, when at rest. Fly by day.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings dentated fulvous, spotted with black, under-side striped with silver.

PAPILIO PAPHIA: Alis dentalis fulvis nigro maculatis, subtus fasciis argenteis. *Linn. Syst, Nat.* 2. 786, 209.

Fn. Sv. 1064.

Geoffr. Inf. 2. 42. 8.

Roef. Inf. 1. pap. 1. tab. 7.

Schæff. Icon. tab. 27. fig. 3, 4.

Wilks pap. 57. tab. 2, a. 7.

Papilio Paphia is an elegant species of the British Papiliones. In size, colour, and general appearance of the upper side it is very similar to Papilio Agala; in the under-side, it is extremely different.

Both

Both of these Butterflies are remarkable for that peculiar shining appearance of polished silver with which a few other of the European Fritillary Butterflies are ornamented; but in *Papilio Agala*, this silver is disposed in distinct splashes or spots, while in *Papilio Paphia* it appears in transverse streaks. These streaks are finely softened into the red and olive green of the wings, and produce altogether a singular and charming effect. It is from the latter circumstance the early English collectors termed this the *silver-wash* Fritillary.

The Caterpillar of this butterfly is found on the grass in May. It is of a plain yellowish brown, with several longitudinal stripes of dark brown; it is also thickly beset with barbed spines, a quarter of an inch in length, and has in particular two of a remarkable form on the first annulation next the head. It remains in the chrysalis twenty or twenty one days; and appears in the winged state early in June.





P L A T E CCXLVIII.

F I G. I. II.

PHALÆNA ATOMARIA.

DARK HEATH MOTH.

GENERIC CHARACTER.

Antennæ taper from the base. Wings in general deflexed when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ feathered. Wings entirely yellowish; with bands of brown, and the whole thickly sprinkled with atoms of the same colour.

PHALÆNA ATOMARIA: pectinicornis; alis omnibus lutescentibus fasciis atomisque fuscis. *Linn. Faun. Suec.* 1245 —
Syst. Nat. p. 862. n. 214.

Phalæna ifoselata. *Scop. carn.* 558. *female.*

Phalæna pennata. *Scop. carn.* 569. *male.*

The Dark Heath Moth is considered as the Phalæna Atomaria of Linnæus, in the *Faun. Suec.* and *Systema Naturæ*. Fabricius adopts the Linnæan character, though in the Synonyms it is confounded with another *Geometræ*, the *Hirtaria* of some entomologists. He refers to the *Phalæna ifoselata* and *Phalæna pennata* of Scopoli, which are evidently the two sexes of the Dark Heath Moth; but the Insect figured in Plate XXXIV. *Kleman's Inf.* is very distinct, and is the *P. Hirtaria* before alluded to. We cannot but observe how closely
the

the Linnæan description will apply in this instance, to two Insects which at first sight appear so extremely different.

This species is very common on heaths in May. The male is much darker in colour than the female, and has curious pectinated and ciliated antennæ, as Scopoli observes. The female has been mistaken for a distinct species.

F I G. III.

PHALÆNA CLATHRATA.

PALE HEATH MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ fetaceous. Wings entirely yellowish, with transverse and longitudinal dark lines intersecting each other.

PHALÆNA CLATHRATA: feticornis alis omnibus flavescentibus: lineis nigris decussatis. *Lyn. Syst. Nat.* 2. 867. 238.
 —*Fn. Sv.* 1275.—*Fab. Ent. Syst.* 3. p. 2. p. 183.
 194.
Schæff. Icon. tab. 216. *fig.* 2. 3.
Scop. Carn. 536.
Sulz. Hist. Inf. tab. 25. *fig.* 2.

This is a rare insect, except in Kent, where Dr. Latham informs us it is more common than the preceding species. Both sexes are very similar to the female Dark Heath Moth. The larva is unknown, but is supposed to feed on the *Erica*, being always found on these plants in the winged state. These insects have been called Heath Moths because they live in heaths, chalk-pits, and other barren places.—The Moths appear in June.

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P L A T E CCXLIX.

FIG. I. I.

CURCULIO RUFUS.

GENERIC CHARACTER.

Antennæ subclavated, seated in the snout or proboscis, which is prominent.

SPECIFIC CHARACTER.

Snout long. Feet formed for leaping, entirely red, except the eyes, which are black.

CURCULIO RUFUS: longirostris pedibus saltatoriis, totus rufus. oculis nigris solis exceptis. *Marsh MS.*
Geoff. Inf. 1. 286. 19. 2.

Probably a new species; it differs from the *Curculio Quercus* of the *Faun Suec*, and *Curculio viminalis* of *Ent. Syst.* in having the abdomen red, and being rather larger.

FIG. II. II.

CURCULIO ALNI.

COLEOPTERA.

SPECIFIC CHARACTER.

Snout long. Feet formed for leaping. Elytra livid red, with two obscure spots,

CURCULIO

CURCULIO ALNI: longirostris, pedibus saltatoriis elytris lividis, maculis duabus obscuris. *Faun. Suec.* 608.—*Fab. Ent. Syst. I.* 445. 216.

Feeds on the leaves of the Alder.

The smallest insect at Fig. 2. represents the natural size.

F I G. III.

CURCULIO TENUIROSTRIS.

SPECIFIC CHARACTER.

Snout long, thighs dentated, black, a short transverse white stripe on the elytra. Antennæ red.

Curculio tenuirostris: longirostris, femoribus dentatis niger, elytris albo subfasciatis, antennis rufis. *Fab. Ent. Syst. I.* p. 2. 443. 204.

Described by Fabricius from the cabinet of Sir Joseph Banks, Bart. without a reference to any figure. His general description is, Minor. C. Ceraforum. Caput nigrum rostro tenui, atro, glabro. Antennæ rufæ clava cinerea. Thorax niger pilis brevissimis cinereis. Scutellum cinereum. Elytra nigra fasciis plurimis, undatis pallidioribus.





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P L A T E C C L.

P A P I L I O B E T U L Æ.

B R O W N H A I R S T R E A K B U T T E R F L Y.

L E P I D O P T E R A.

G E N E R I C C H A R A C T E R.

Antennæ clavated: wings erect when at rest. Fly by day.

S P E C I F I C C H A R A C T E R

AND

S Y N O N Y M S.

Wings furnished with small tails: above brown: beneath yellowish, with two white stripes on the posterior wings.

Papilio Betulæ: alis subcaudatis fuscis subtus luteis: posticis strigis duabus albis. *Linn. Syst. Nat.* 2. 220.—*Fn. Sv.* 1070.

Hesperia Betulæ. *Fab. Ent. Syst.*

Geoff. Inf. 2. 58. 27.

Albin. Inf. tab. 5. fig. 7.

Ernst. Pap. Europ. 1. tab. 35. fig. 7.

Hufnag. Inf. tab. 12. fig. 1.

Petiv. Gazoph. tab. 11. fig. 11.

The male of this species is distinguished by a large fulvous mark or spot on the anterior wings. The larva is very remarkable, being broad and flat. It is found in the months of May and June on the Alder and Sloe. Changes to Chrysalis the first week in July. The Flies appear in August.



P L A T E CCLI.

FIG. I.

PHALÆNA SUBERARIA.

WAVED UNDER MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ taper from the base : wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER.

Antennæ pectinated, yellowish, with a dark ferruginous dash across the superior wings, and a band of the same on the inferior pair ; the whole of the upper surface with numerous irregular transverse streaks.

PHALÆNA SUBERARIA : pectinicornis lutescens, alis superioribus litura, inferioribus fascia fusco ferrugineis, omnibus strigosis. *Marsham MS.*

The Waved Under Moth is found on the Oak in May. It is described only in the MS. of T. Marsham, Esq.

F I G. II.

PHALÆNA LACERTINARIA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ feathered: wings deeply indented, yellowish brown: two dark lines across the anterior wings, and a light spot in the middle: posterior without any marks.

PHALÆNA LACERTINARIA, pectinicornis alis erosis lutescentibus: strigis duabus punctoque medio fuscis, posticis immaculatis. *Lin. Syst. Nat.* 2. 860. 204.

Fab. Ent. Syst. T. 3. p. 2. 135.

Schæf. Icon. tab. 66. fig. 2. 3.

Degeer. Inf. 1. tab. 10. fig. 7. 8.

Reaum. Inf. 2. tab. 22. fig. 4—6.

Found on the Oak in May and June.

F I G. I I I .

P H A L Æ N A M A C U L A T A .

S P E C I F I C C H A R A C T E R .

Wings yellow spotted with black.

P H A L Æ N A M A C U L A T A : feticornis alis flavis nigro maculatis.

Fab. Ent. Syst. T. 3. p. 2. 197. 244.

Phalæna Macularia. *Linn. Syst. Nat. 2. 862. 215.*

Extremely common about the hedges in the vicinity of London during the months of June and July.



P L A T E CCLII:

FIG. I. I.

CIMEX VITTATUS.

GENERIC CHARACTER.

Snout inflected: antennæ longer than the thorax: wings four, folded crosswise, anterior part of the upper pair coriaceous: back flat: thorax margined: legs formed for running.

SPECIFIC CHARACTER.

Black: anterior and posterior part of the thorax yellow: scutellum yellow: base of the antennæ, and wing-cases rufous; the latter with a longitudinal whitish stripe bent in at the apex.

CIMEX VITTATUS: thorace antèrius posteriùsque scutelloque flavis antennarum basi elytrisque rufis: vitta apiceque inflexo albis. *Gmel. Syst. Nat. p. 2166. n. 631?*

Taken on the Rose. Fig. I. I. natural size, and magnified.

FIG. II. II.

CIMEX POPULI.

SPECIFIC CHARACTER.

Oblong: whitish, clouded and sprinkled with brown: antennæ fetaceous.

CIMEX POPULI: oblongus albo fuscoque nebulosus antennis setaceis.
Linn. Faun. Succ. 963.

Very common against the trunks of trees, the Poplar in particular.

L I N N Æ A N I N D E X

TO

V O L. VII.

COLEOPTERA.

	Plate	Fig.
Dermeſtes Pellio - - -	231.	3.
—— Scarabœides - - -	ib.	4.
Coccinella Annulata - - -	243.	2. 2.
—— 14 guttata - - -	ib.	1.
—— Caffidoides - - -	ib.	3.
Curculio Rufus - - -	249	1.
—— Alni - - -	ib.	2.
—— Tenuiroſtris - - -	ib.	3.
Attelabus Apiarius - - -	231.	1.
—— Formicarius - - -	ib.	2.
Carabus Violaceus - - -	222.	1.
—— Gemmatus - - -	ib.	2.
—— Granulatus - - -	ib.	3.
Meloe Teſta - - -	240.	

HEMIPTERA.

Cimex Gonymelas - - -	218.	1.
—— Hæmorrhoidalis - - -	ib.	2.
—— Vittatus - - -	252.	1.
—— Populi - - -	ib.	2.
—— Flavo marginatus - - -	245.	

LEPIDOP.

I N D E X.

LEPIDOPTERA.

					Plate	Fig.
Papilio	Hyale	-	-	-	238.	1.
—	Edusa	-	-	-	ib.	2.
—	Camilla	-	-	-	244.	
—	Paphia	-	-	-	247.	
—	Cinxia	-	-	-	242.	1.
—	Lucina	-	-	-	ib.	2.
—	Betulæ	-	-	-	250.	
—	Hippothoe?	-	-	-	217.	
—	Corydon	-	-	-	236.	1. 2.
Sphinx	Convolvuli	-	-	-	228.	
—	Larva et Pupa	-	-	-	229.	
—	Populi	-	-	-	241.	
Phalæna	Monacha	-	-	-	227.	
—	Vidua	-	-	-	246.	1.
—	Compressa	-	-	-	239.	2.
—	Trepida	-	-	-	ib.	1.
—	Nupta	-	-	-	244.	
—	Maura	-	-	-	230.	1.
—	Lucipara	-	-	-	ib.	2.
—	Derafa	-	-	-	223.	1.
—	Lichenes	-	-	-	ib.	3.
—	Tragopoginis	-	-	-	ib.	2.
—	Myrtilli	-	-	-	221.	
—	Prodomaria	-	-	-	219.	
—	Betularia	-	-	-	237.	
—	Prunaria	-	-	-	233.	1.
—	Duplicata	-	-	-	ib.	2.
—	Vespestaria	-	-	-	ib.	3.
—	Chærophyllata	-	-	-	ib.	4.
—	Dubitata	-	-	-	246.	2.
—	Atomaria	-	-	-	248.	1. 2.
—	Clathrata	-	-	-	ib.	3.
—	Suberaria	-	-	-	251.	1.
—	Lacertinaria	-	-	-	ib.	2.
—	Maculata	-	-	-	ib.	3.

NEUROP.

I N D E X.

NEUROPTERA.

				Plate	Fig.
Phryganea Rhombica	-	-	-	220.	

HYMENOPTERA.

Tenthredo Lutea	-	-	-	-	234.
Sirex Spectrum	-	-	-	-	223.
Chrysis Cyanea	-	-	-	-	235.
Vespa Vulgaris	-	-	-	-	226.

ALPHABETICAL

ALPHABETICAL INDEX

TO

V O L. VII.

				Plate	Fig.
Alni, Curculio	-	-	-	249	2
Annulata, Coccinella	-	-	-	243	2. 2.
Apiarius, Attelabus	-	-	-	231	1
Atomaria, Phalæna	-	-	-	248	1. 2.
Betularia, Phalæna	-	-	-	237	
Betulæ, Papilio	-	-	-	250	
Camilla, Papilio	-	-	-	244	
Cassidoides, Coccinella	-	-	-	243	3.
Chærophyllata, Phalæna	-	-	-	233	4.
Cinxia, Papilio	-	-	-	242	1.
Clathrata, Phalæna	-	-	-	248	3
Compressa, Phalæna	-	-	-	239	2.
Convolvuli, Sphinx	-	-	-	228	
———— Pupa, ditto	-	-	-	299	
Corydon, Papilio	-	-	-	236	1. 2.
Cyanea, Chrysis	-	-	-	235	
Derafa, Phalæna	-	-	-	223	1.
Dubitata, Phalæna	-	-	-	246	2.
Duplicata; Phalæna	-	-	-	233	2.
Edusa, Papilio	-	-	-	238	2.
					• Flav-

I N D E X.

				Plate	Fig.
Flavo-marginatus, Cimex	-	-	-	245	
Formicarius, Attelabus	-	-	-	231	2.
Gemmatus, Carabus	-	-	-	222	2.
Gonymelas, Cimex	-	-	-	218	2.
Granulatus, Carabus	-	-	-	222	3.
Hæmorrhoidalis, Cimex	-	-	-	218	2.
Hippothoe? Papilio	-	-	-	217	
Hyale, Papilio	-	-	-	238	1.
Lacertinaria, Phalæna	-	-	-	251	2.
L chenes, Phalæna	-	-	-	223	3.
Lucina, Papilio	-	-	-	242	
Lucipara, Phalæna	-	-	-	230	2.
Lutea, Tenthredo	-	-	-	234	
Maculata, Phalæna	-	-	-	251	3.
Maura, Phalæna	-	-	-	230	1.
Myrtilli, Phalæna	-	-	-	221	
Nupta, Phalæna	-	-	-	224	
Paplia, Papilio	-	-	-	247	
Pellio, Dermestes	-	-	-	231	3.
Populi, Sphinx	-	-	-	241	
Populi, Cimex	-	-	-	252	2. 2.
Prodromaria, Phalæna	-	-	-	219	
Prunaria, Phalæna	-	-	-	233	1.
14-guttata, Coccinella	-	-	-	243	1. 1.
Rhombica, Phryganea	-	-	-	220	
Rufus, Curculio	-	-	-	249	1.
Scarabæides, Dermestes	-	-	-	231	4.
Spectrum, Sirex	-	-	-	223	
Suberaria, Phalæna	-	-	-	251	1.
					Tecta,

I N D E X.

				Plate	Fig.
Tecta, Meloe	-	-	-	240	
Tenuirostris, Curculio	-	-	-	249	2.
Tragopoginis, Phalæna	-	-	-	223	2.
Trepida, Phalæna	-	-	-	239	1.
Vespertaria, Phalæna	-	-	-	233	3.
Vidua, Phalæna	-	-	-	246	1.
Violaceus, Carabus	-	-	-	222	1.
Vittatus, Cimex	-	-	-	252	1. 1.
Vulgaris, Vespa	-	-	-	226	

